

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application

1 - 21 (Canceled)

22. (New) A heating device for fluids, the heating device being adapted for mounting thereof in a continuous flow heater, the heating device comprising:
at least one heating element configured as an electric resistance heater; and
at least one heat exchanging element for the exchange of heat between the heating element and a fluid, the heat exchanging element being connected in a heat-conducting manner to the heating element and the fluid so as to transfer the heat generated by the heating element to the fluid and the heat exchanging element forming an integral housing component of a pressure-resistant and temperature-resistant continuous flow heater and having a substantially planar central area on which the heating element is mounted.
23. (New) The heating device according to claim 22, wherein the heating element comprises a plurality of electrically interconnected heating sections that substantially cover the entire central area except for a mounting area that provides access for mounting through the heating sections.
24. (New) The heating device according to claim 23, wherein the heating element includes at least one heating circuit through electrical connection of corresponding heating sections.
25. (New) The heating device according to claim 22, wherein the heating element is formed from a material having a positive temperature characteristic (PTC).

26. (New) The heating device according to claim 22 and further comprising a temperature monitoring device disposed on the heat exchanging element that is in good heat-conducting connection with the heat exchanging element.
27. (New) The heating device according to claim 26, wherein the heating element comprises a plurality of electrically interconnected heating sections that substantially cover the entire central area except for a mounting area that provides access for mounting through the heating sections and the temperature monitoring element is disposed in the mounting area adjacent to the heating element.
28. (New) The heating device according to claim 26, wherein the temperature monitoring element is formed by an NTC resistance.
29. (New) The heating device according to claim 22, wherein the heat exchanging element consists of a material that exhibits poor thermal conductivity in a lateral direction.
30. (New) The heating device according to claim 22 and further comprising a contacting device disposed on the heat exchanging element that is electrically connected to the electrical elements of the heating element.
31. (New) The heating device according to claim 30, wherein the contacting device is electrically connected to each heating circuit of the heating element and the temperature monitoring device.
32. (New) A continuous flow heater comprising:

a heating device including:
a heating element; and

at least one heat exchanging element for the exchange of heat between the heating element and a fluid, the heat exchanging element being connected in a heat-conducting manner to the heating element and the fluid so as to transfer the heat generated by the heating element to the fluid, the heat exchanging element being connected in a heat-conducting manner to the heating element and the fluid so as to transfer the heat generated by the heating element to the fluid and the heat exchanging element forming an integral housing component of a pressure-resistant and temperature-resistant continuous flow heater and having a substantially planar central area on which the heating element is mounted; and a molded part connected positively to the heating device in a pressure-resistant and thermally stable manner to form a fluid chamber, the molded part having at least one inlet and at least one outlet.

33. (New) The continuous flow heater device according to claim 32 and further comprising a temperature monitoring device disposed on the heat exchanging element of the heating device in an area situated close to the inlet in the molded part.
34. (New) A method for producing a heating device for fluids, the method comprising the steps of:
 - a. providing a semi-finished product having poor lateral thermal conductivity;
 - b. forming a substantially flat heat exchanging element from the semi-finished product having an inner surface and an outer surface and a substantially planar central area;
 - c. applying a heating element embodied as an electrical resistance heater to the central area of the heat exchanging element leaving a mounting area; and

- d. applying a temperature monitoring device to the mounting area so that this is not influenced by the heating element during operation of the continuous flow heater.
35. (New) The method according to claim 34, wherein applying a temperature monitoring device to the mounting area includes applying the temperature monitoring device directly to the heat exchanging element.
36. (New) The method according to claim 34 and further comprising applying a contacting device to the heat exchanging element and electrically connecting to the electrical elements of the heating device.
37. (New) The method according to claim 34, wherein the heating element and the temperature monitoring device are applied to the same side of the heat exchanging element.
38. (New) The method according to claim 34, wherein the heating element and the temperature monitoring device together with the contacting device are applied to the outer surface of the heat exchanging element.
39. (New) A method for producing a continuous flow heater comprising the steps:
- a. producing a heating device including at least one heating element configured as an electric resistance heater and at least one heat exchanging element for the exchange of heat between the heating element and a fluid, the heat exchanging element being connected in a heat-conducting manner to the heating element and the fluid so as to transfer the heat generated by the heating element to the fluid and the heat exchanging element forming an integral housing component of a pressure-resistant and temperature-resistant continuous flow heater and having a substantially planar central area on which the heating element is mounted;

- b. producing a molded part with at least one inlet and at least one outlet; and
 - c. positively joining the heating device and the molded part so that the assembly is pressure-resistant and thermally stable.
40. (New) The method according to claim 39, wherein joining together the heating device and molded part includes inserting a sealing ring therebetween.
41. (New) A dishwasher for washing items, the dishwasher comprising:
a container for retaining items to be washed; and
a heating device including:
a heating element; and
at least one heat exchanging element for the exchange of heat between the heating element and a fluid, the heat exchanging element being connected in a heat-conducting manner to the heating element and the fluid so as to transfer the heat generated by the heating element to the fluid, the heat exchanging element being connected in a heat-conducting manner to the heating element and the fluid so as to transfer the heat generated by the heating element to the fluid and the heat exchanging element forming an integral housing component of a pressure-resistant and temperature-resistant continuous flow heater and having a substantially planar central area on which the heating element is mounted.
42. (New) A dishwasher for washing items, the dishwasher comprising:

a container for retaining items to be washed; and

a continuous flow heater having a heating device and a molded part, the heating device including a heating element and at least one heat exchanging element for the exchange of heat between the heating element and a fluid, the heat exchanging

element being connected in a heat-conducting manner to the heating element and the fluid so as to transfer the heat generated by the heating element to the fluid, the heat exchanging element being connected in a heat-conducting manner to the heating element and the fluid so as to transfer the heat generated by the heating element to the fluid and the heat exchanging element forming an integral housing component of a pressure-resistant and temperature-resistant continuous flow heater and having a substantially planar central area on which the heating element is mounted, and the molded part being connected positively to the heating device in a pressure-resistant and thermally stable manner to form a fluid chamber, the molded part having at least one inlet and at least one outlet.